

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
18 September 2003 (18.09.2003)

PCT

(10) International Publication Number  
**WO 03/076779 A1**(51) International Patent Classification<sup>7</sup>: **F02C 3/055**,  
F02B 33/34, 53/00, 53/14, F01C 11/00, F02B 41/10,  
F02C 5/06, 6/12(74) Agents: **LUZZATTO, Kfir et al.**; Luzzatto & Luzzatto,  
P.O. Box 5352, 84152 Beersheva (IL).

(21) International Application Number: PCT/IL03/00192

(22) International Filing Date: 10 March 2003 (10.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/363,842 14 March 2002 (14.03.2002) US(71) Applicant (for all designated States except US): **NEW-  
TON PROPULSION TECHNOLOGIES LTD.** [IL/IL];  
P.O. Box 18040, 61180 Tel Aviv (IL).

(72) Inventor; and

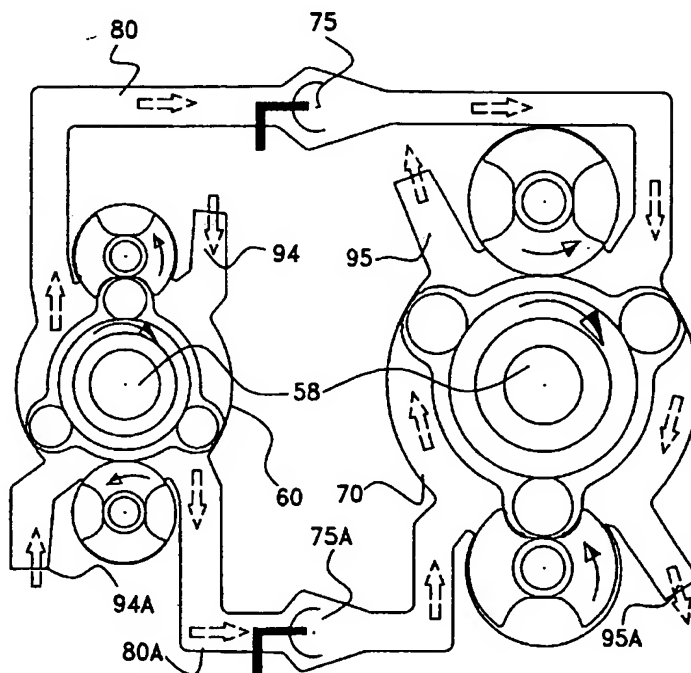
(75) Inventor/Applicant (for US only): **ROM, Haim** [IL/IL];  
19 HaMeri Street, 53332 Givataim (IL).(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,  
SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,  
UZ, VC, VN, YU, ZA, ZM, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: GAS TURBINE ENGINE SYSTEM

(57) **Abstract:** An engine system comprises at least a first volumetric device, and a second volumetric device in which said second volumetric device is larger in volume than said first volumetric device, in which, during continuous flow of a compressible fluid from said first to said second volumetric device work is performed.